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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,457	05/24/2006	Hideo Ohashi	290490US40PCT	5530
22850 7590 03/19/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER WALBERG, TERESA J	
			ART UNIT 3744	PAPER NUMBER
			NOTIFICATION DATE 03/19/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/580,457	<b>Applicant(s)</b> OHASHI, HIDEO	
	<b>Examiner</b> Teresa J. Walberg	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higashiyama (WO 02/068892) in view of Tooyama et al (US 2001/0040027), JP 8-10764 (inventor unknown), and Naji et al (6,408,940).

Higashiyama discloses a heat exchanger (Fig. 1) including a plurality of flat refrigerant passing bodies (3) arranged in parallel at a spacing with widths of the refrigerant passing bodies (3) oriented in a front rear direction, corrugated fins (13) arranged between pairs of the refrigerant passing bodies (3), refrigerant inlet and outlet headers arranged on the upper side of the heat exchanger core side by side in the front-rear direction (Fig. 1), each having at least one end positioned at a widthwise outer end of the heat exchange core (Fig. 1), a refrigerant inlet at one end and a refrigerant outlet alongside the inlet (721, 722), a second fin (13) being disposed outside the refrigerant passing body positioned at the widthwise outer end of the core (Fig. 1), a side plate (14) disposed externally of the second fin (Fig. 1), a refrigerant flowing into the inlet header through the inlet and returns to the outlet header after flowing through all the refrigerant passing bodies and is sent out from the outlet (Fig. 1), the second fin and side plate having upper ends so positioned as to permit an upper portion

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outer surface of the core end refrigerant passing body to be exposed (Fig. 1), the inflow and outflow members being arranged on the core-end refrigerant passing body at an external portion thereof above the second fin and the side plate (Fig. 1), the inflow member being connected to the inlet of the inlet header, the outflow member being connected to the outlet of the outlet header (Fig. 1), the inflow and outflow members each comprising a tube (721, 722), one of the inflow and outflow members is positioned in front of the other and extending straight forward (721) and the other member being curved downwardly and having an outer end extending straight forward (722), the side plate (14) being provided at an upper end thereof with a portion (14a) bent toward the refrigerant passing body (see Fig. 1).

Higashiyama does not disclose the tubes of the inflow and outflow members being rectangular and being open at one end and closed at the other end and having outer side faces positioned within an upward extension of the plane of an outer side face of the side plate and a covering member being provided for closing a space between the upper end bent portion of the side plate and a lower end of the of the inflow and outflow members,

Tooyama et al shows a heat exchanger having adjacent inflow and outflow member bent so as to be positioned within a confined space (Figs. 6A and 6B).

JP 8-10764 shows a heat exchanger (Fig. 6) having a connector (5) positioned to be within an upward extension of the plane of an outer side face (6) of a side plate or inwardly of the extension (Figs 2 and 6).

It would have been obvious in view of Tooyama et al to position the inflow and outflow members of Higashiyama so as to fit within a confined space and in view of JP 8-10764 to position the inflow and outflow members of Higashiyama within an upward extension of the plane of an outer side face of the side plate or inwardly of the extension, the motivation being to enable positioning the heat exchanger of Higashiyama within a narrower space.

Naji et al discloses a heat exchanger (see abstract, line 2) having a covering member (Fig. 8c) which closes a space between the upper portion of the side plate and a lower end of the of the inflow and outflow members (since projecting regions 96 and 97 are disclosed as being brazed to the bosses 25 of the partition plate 2, see col. 7, lines 49-51) and discloses that the covering member is intended to reduce vibration of the heat exchanger.

It would have been obvious in view of Naji et al to provide a covering member on the end of the heat exchanger of Higashiyama, the motivation being to reduce vibration of the heat exchanger as taught by Naji et al.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Manfredo et al, Hayashi et al, and Matsuura are cited to show covering members structured to prevent bypass of a heat exchanger.

4. Applicant's arguments with respect to claims 1, 3, 4, and 8-16 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Teresa J. Walberg/  
Primary Examiner, Art Unit 3744

/TW/